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THE PROBLEM OF BLINDNESS FROM GLAUCOMA

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Glaucoma is the cause of blindness in nearly 14 percent of the 12,500 recipients under California's Aid to the Blind program, according to a recent study by the Prevention of Blindness Project of the State Department of Public Health. Of all the blinding eye diseases, glaucoma is the second most important cause, being outranked only by cataract.*

What Is Glaucoma?

Glaucoma is one of the little-publicized "unconquered" diseases facing medical science today. This condition, which is characterized by an increased pressure within the eyeball, has long received the attention of clinical and experimental ophthalmologists. General agreement exists on the classification of glaucoma into two basic types—primary and secondary. The secondary glaucomas are caused by such things as tumors, diabetes, vascular disturbances, and other diseases, and their etiology and management are known. The primary glaucomas can be divided into two types, sometimes known as acute and chronic simple or sometimes classified anatomically by the type of angle found in the anterior chamber of the eyeball. Acute glaucoma, which accounts for only about 10 percent of the primary glaucoma cases, is obvious because its onset is usually sudden and painful; on the other hand, chronic simple glaucoma,

accounting for 90 percent of the primary glaucoma cases, progresses slowly and painlessly. Less is known about its pathogenesis, and, because it seldom gives warning until it has progressed to a stage where it is difficult to control, it is a much greater problem. Although it is found in all age groups, it occurs most often in those over 40. Found in its early stages, this insidious disease can usually be controlled by medication or surgery. Once the disease is discovered, the patient frequently must continue under the care of an eye physician for the rest of his life. If it is not treated, the almost inevitable result is blindness. Often those patients hav-

ing acute glaucoma, however, can be cured by an operation which removes a portion of the iris.

The normal eye contains fluid which flows into and out of it at a fairly constant rate. In glaucoma, something impedes the outflow of the fluid. The pressure within the eye from the increase of this fluid destroys the delicate nerve fibers in the retina and the optic nerve. Usually the part of the retina which is responsible for the peripheral vision is destroyed first. In chronic simple glaucoma, one does not notice this gradual loss of sight at the edges of his field of vision until considerable damage has been done. What causes the disturbance in the flow of



The tonometer test, a method often used in diagnosing glaucoma

* Prevention of Blindness Project, which is supervised by William D. Simmons, is administratively assigned to the Bureau of Chronic Diseases, directed by Lester Breslow, M.D. The authors appreciate the assistance of the ophthalmologists on the project's advisory committee in reviewing this material.

the fluid in eyes with this type of glaucoma is unknown.

Chronic simple glaucoma in the early stages is often difficult to diagnose. Ophthalmologists use several tests to help them evaluate suspected cases. Measurement of the pressure within the eyeball is the most common and one of the most important of these. The tonometer, an instrument which is placed directly on the anesthetized eye to measure the degree of pressure is most often used. Some eye physicians use an electric tonometer and recording device which records the pressure variations over a period of time. Other instruments enable the eye physician to determine whether the patient has lost any of his visual field, the tangent screen and the perimeter being employed for this purpose. A number of so-called "provocative" tests may also assist the doctor in his diagnosis. Examination of the interior of the eye with the ophthalmoscope is most important to estimate the amount of damage suffered by the optic nerve.

Costs of Blindness

Aside from humanitarian considerations, one might ask what blindness and glaucoma cost. Only rather sketchy information is available. The National Society for the Prevention of Blindness estimates that \$150,000,000 is spent annually in the United States for care and service to the blind. Payments to recipients under the aid to the blind program in California, including payments to counties for institutional care of former recipients of aid, amounted to about \$12,800,000 for the fiscal year ended June, 1955. Several more millions are spent within the State each year for education, orientation, vocational rehabilitation, and other services for the blind. Since glaucoma causes about 14 percent of the blindness in this State it is reasonable to assume that its victims absorb an important share of these moneys.

The economics of blindness includes much more than the costs of direct government aid and services. Directly and indirectly, blindness results in a loss of revenue to the government, to society, and to the individual. For example, both state and federal tax laws allow an additional exemption on income tax returns for blind-

ness. No tax revenue from this exempt income is collected. Furthermore, the handicap of blindness usually causes the income of the individual to be considerably lower than it would be if that person were sighted. The lower income means less tax revenue for local, State, and Federal Governments. In addition, society loses the potential skills and productivity of the blind, for these are usually not developed as they would be were it not for loss of vision.

Although the direct and indirect costs of blindness from all causes, much less from glaucoma alone, cannot really be measured, the available information indicates that the sum is tremendous. Financial aid, education, rehabilitation—all are necessary and indeed vital expenditures, but at best they are only remedial. The most satisfactory solution to the problem of blindness—as it is with most problems—is prevention. This is especially true of glaucoma, the outstanding preventable cause of blindness.

Efforts Toward Prevention

What, then, is being done to prevent blindness from this cause? The National Institute of Neurological Diseases and Blindness gives financial support to research into the pathogenesis of glaucoma and makes various types of training grants. In this State, the U. S. Public Health Service has provided a teaching grant to the Eye Department of the University of California School of Medicine to establish a glaucoma clinic and to train ophthalmologists in the management of this disease. Several foundations have also assisted studies of the glaucoma problem. The W. K. Kellogg Foundation has endowed a glaucoma project at Johns Hopkins University Medical School where researchers are studying the influences causing changes in intraocular pressure and are working on the improvement of instruments for measuring intraocular tension. By means of a Kellogg grant, the National Society for the Prevention of Blindness produced a motion picture concerning the role of the general practitioner in the early diagnosis and treatment of glaucoma.* This

* This film, "Glaucoma—What the General Practitioner Should Know," may be borrowed without charge from the Bureau of Health Education, California State Department of Public Health, 2151 Berkeley Way, Berkeley, California.

foundation has also made grants to state health departments in Oregon, Louisiana, Mississippi, and California for blindness prevention programs. In each instance, some of the work resulting from these grants has been directed at glaucoma.

California's Kellogg Grant

The California State Department of Public Health's Prevention of Blindness Project was established as a result of the Kellogg grant, made for a three-year period beginning in the summer of 1954. One of the purposes of the grant was to investigate the practicability of a local program for blindness prevention. As a result of findings of the project's study of causes among recipients of aid to the blind, which pointed to glaucoma as a leading cause of blindness, the staff has concentrated its efforts toward promoting education about glaucoma. Up to the present time, staff meetings in a number of health departments have informed local public health personnel of the importance of glaucoma as a cause of blindness and of the public health methods which can be employed against it. The project staff hopes that some practical demonstrations of what may be done by local health departments to promote control of glaucoma will develop as the result of these efforts. Another part of the project's work is a study on the epidemiology of glaucoma.

Glaucoma Clinics

An important factor in helping to control blindness due to glaucoma is the establishment of glaucoma clinics in some leading hospitals in this country and in other areas of the world, notably Brazil, Canada, and Australia, during the past 15 years. The impetus for this came from the National Society for the Prevention of Blindness which in 1942 started a demonstration glaucoma clinic in Manhattan Eye, Ear and Throat Hospital in New York City. One of the principal values of such diagnostic and treatment centers is that they encourage continuous, supervised care for glaucoma patients. These clinics also provide valuable research opportunities. A few California hospitals have established glaucoma clinics, but most parts of the State do not have such facilities.

Demonstrations in Case-finding

When the cause of glaucoma is found, medicine may then know the primary way to prevent it. Until then, however, discovery of the disease in its early stages remains the best method of preventing its progress to blindness. Ophthalmologists had long recognized the importance of early detection, but, until recently, the problems of diagnosis seemed to rule out mass examination that would find early cases. Not until 10 years ago did there emerge a real attempt to see what a screening program actually could do. This pioneer program was conducted by the Philadelphia Committee for the Prevention of Blindness among employees of large industries and department stores in that city. The basic screening examination included a test for visual acuity, external examination for gross pathology, observation of the fundus, and an ocular tension test with a standard Schitz tonometer. Those with tonometric readings above 25 mm. were called back for further examination including field studies and provocative tests. Criteria were established for classification of test results. A tension of 28 mm. was set as the upper limit of normal. In general, those above 28 mm. were classed as borderline (28-32 mm.), early glaucoma (32-40), or definite glaucoma (over 40 mm.), with consideration being given to field and provocative test findings. Those cases which, after retesting, showed indications of glaucoma were referred to an eye physician or to a glaucoma clinic. Over a period of several years this program screened some 10,000 people. The findings, reported in 1951, resulted in the estimate that 2 percent of the population over 40 has undetected glaucoma. (2)

In 1953 a one-day screening program in Cleveland, sponsored by the Cleveland Society for the Blind at the request of the ophthalmologists in that city, tested almost 13,000 people. The findings here were in agreement with the 2 percent figure of the Philadelphia survey. (3) Early in 1956, Santa Barbara, California, was the scene of a "G" Day demonstration screening program sponsored by the California Committee of the National Society for the Prevention of Blindness. About 700 persons were examined by local eye physicians who gave support to

the one-day event. The Santa Barbara City Health Department assisted with the planning and handled follow-up of cases requiring referral. The California Committee of the NSPB has conducted other "G" Days in Glendale and Alhambra. In each instance, the results substantiate the Philadelphia survey's estimate that 2 percent of those over 40 have undetected glaucoma. Applied to the population of the United States, this means that more than 1,000,000 people have this eye disease. In California alone, an estimated 96,000 people over 40 have glaucoma and don't know it.

In addition to programs for screening of the general population, some eye tests for special groups have been conducted. For a year two eye physicians supervised interns in the tonometric screening of admissions to Multnomah County Hospital, Portland, Oregon. (4) Doctors at Wright-Patterson Air Force Base conducted glaucoma screening on the civilian employees at that base. (5) (6) Patients at Agnews State Hospital in California were screened by ophthalmologists interested in studying, among other things, the prevalence of glaucoma among mental patients. (7)

These programs have demonstrated that glaucoma is amenable to screening for early detection and to the application of other public health methods such as public education and nursing follow-up for patient instruction. The studies have also shown that the yield of previously unknown cases is sufficiently high to warrant the effort. To emphasize the fact that glaucoma screening does find enough undetected cases to make it worthwhile, the physicians who screened the Multnomah County Hospital admissions made some comparisons with the results of screening for other conditions. They noted that several hundred chest X-rays must be taken to detect a single active new case of tuberculosis; that the state laboratory in Oregon examines 1,000 blood samples to find 30 positive tests for syphilis, with many of those 30 being false positives and repeat tests done on known cases; and that a screening of 1,000 persons over the age of 40 for glaucoma could be expected to find about 20 new cases which, when referred to ophthalmologists, would definitely be diagnosed as glaucoma. Somewhat more than 20 would be

found with elevated tensions, but some of these would be "false positives."

Need for Continuing Program

In view of the size of the problem, however, the number of these glaucoma screening activities both of general and of special groups is small, and they have been only demonstrations or pilot studies. They have pointed out the value and the need for continuing efforts to reach all the population over 40 years old. The one-day demonstration program in Cleveland convinced those who worked in it that "the program to keep people interested in the early detection of glaucoma should be a year-round one."

Perhaps a trend in this direction had its beginning in the closing months of 1955 with the establishment of a glaucoma testing service by the Philadelphia Department of Public Health. Available without charge to all persons over 45, the service was planned in cooperation with the Committee on Public Health and Preventive Medicine of the Philadelphia County Medical Society. Unfortunately, after some weeks the service had to be suspended temporarily when it ran into problems of budget and staffing. During its operation, the public made excellent use of this screening opportunity. Its organizers hope to reopen it on a permanent basis. (8)

Tonometry in Physical Examinations

Another case-finding method which is gaining considerable support among leading ophthalmologists is the incorporation of routine tonometry into the regular physical examination. If this is to be done, it will require the interest of the present medical profession, particularly general practitioners and of future physicians.

The Ophthalmological Foundation of New York has for many years promoted the use of tonometry by general practitioners. As part of its program, this foundation has aided the development of an ocular hypertension indicator, a simplification of the tonometer. This instrument indicates whether or not the tension of the eyeball is normal or abnormal. Thus it helps the physician in general practice if a patient should be referred to an eye specialist. The relative simplicity

of this instrument may make it an important tool for physicians. (9) (10)

When physicians recognize that glaucoma is at least as important as some of the other diseases and ailments for which they check routinely, a significant part of the problem of how to detect early glaucoma cases will be solved. The alerting of physicians to the symptoms and the consequences of glaucoma could most readily be accomplished by ophthalmologists working through local medical groups.

Many eye physicians agree that the proper training of the future medical profession requires a revision in the medical schools' teaching of what constitutes a complete physical examination. Medical school faculties should stress the importance of the early detection of glaucoma and should teach tonometry as an essential part of the physical examination.

Extension of Training

In medicine as in other professions, a lag often occurs between the time a discovery is made or an improved method is devised and the time it is put into widespread practice. By means of professional meetings, ophthalmology has endeavored to shorten this lag. The XVII International Congress of Ophthalmology which met in Montreal and New York, September, 1954, is an example of this effort at the international level. Primary glaucoma was one of the official topics at this gathering. The Eye Department at the University of California School of Medicine in San Francisco contributed to professional education in California by sponsoring an ophthalmological conference on glaucoma in March, 1956. During the three-day meeting, the participants reviewed recent advances in the etiology, diagnosis, medical management, and surgery of glaucoma. This course was supported in part by the U. S. Public Health Service ophthalmology training grant mentioned earlier.

Need for Education

Clinics, screening programs, medical research, physician education—as important as are all of these in the fight against glaucoma—they will not succeed until an informed public recognizes the importance of the problem. This requires, first of all, a much

more concentrated and widespread effort than has yet been made in California, to let the people in every community know the facts about glaucoma. It is still an unfamiliar term to the average citizen, unless he happens by chance to know someone who is blind from this disease.*

Knowledge alone, however, is not enough. If there is to be prevention, those who know what glaucoma is must also want to take some positive action, and must know what action is possible. In other words, they must know that early detection is the best present means of preventing blindness from glaucoma. Further, they must want to secure regular eye care for this purpose, and they must know where this eye care can be found and what steps to take to get it.

When an informed public actively seeks to prevent unnecessary blindness from glaucoma, there will inevitably result a tremendous saving, not only of human resources, but also of tax dollars, and the gap between knowledge and practice will be measurably diminished.

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Public Health Nurses, Sanitarians Needed for Work in Rural Areas

Public health nurses and sanitarians interested in working in rural California counties are being recruited by the State Department of Public Health for employment in counties contracting with the department for public health services.

A public health nurse is needed immediately for assignment to Nevada County and others will be needed in other counties which may contract for services within the next few months. Salary range for public health nurses is \$415 to \$505. A car is provided. Applicants must possess a California public health nursing certificate or a bachelor's degree and must have two years of experience as a public health nurse in a generalized program. Further information may be obtained by writing to Miss Rena Haig, Chief, Bureau of Public Health Nursing, State Department of Public Health, 2151 Berkeley Way, Berkeley 4.

Area Sanitarians are needed for immediate appointment in Modoc and Nevada Counties. Salary range is \$395 to \$481. A car is provided. For further information write Division of Local Health Services, State Department of Public Health, 2151 Berkeley Way, Berkeley 4.

Rehabilitation Nursing Workshop To Be Held October 29-November 16

A three-week Rehabilitation Nursing Workshop will be held for registered nurses interested in rehabilitation on October 29th to November 16th at Rancho Los Amigos Hospital, Hondo, California.

Sponsored by the U. C. L. A. School of Nursing, the course will emphasize patient and family teaching, staff education, self-care activities, and team nursing. Further information can be obtained from University of California Extension, Los Angeles 24.

* A film on glaucoma suitable for public information use—"Hold Back the Night"—is available for loan without charge from the Bureau of Health Education, California State Department of Public Health, 2151 Berkeley Way, Berkeley, California.

American Public Health Association To Meet November 12-16, Atlantic City

Progress in preventing health hazards and diseases ranging from highway accidents to the common cold will be reviewed by more than 4,000 public health specialists at the 84th annual meeting of the American Public Health Association and meetings of 40 related organizations in the Atlantic City Convention Hall, November 12-16, 1956.

Highlights of 81 sessions, according to Dr. Reginald M. Atwater, executive secretary of the association, will include reports on:

Progress of Public Health Service and Navy research teams in immunization against upper respiratory viruses;

Public health problems in use of tranquilizing drugs;

Health hazards involved in development of peacetime uses of nuclear energy;

New food processing and preservation methods, including use of antibiotics, radiation and radioactive products;

Latest developments in fluoridation of water supplies to prevent tooth decay;

Experiences in recent outbreaks of milkborne paratyphoid B, encephalitis and streptococcal diseases, and

Controlled field trials of vaccines to prevent encephalitis, typhoid, pertussis and poliomyelitis.

Other areas to be covered by more than 400 scientific papers, supplemented by scientific and technical exhibits, include: public health approaches to mental illness and retardation, prevention of home, farm, and industrial accidents, and recent developments in various aspects of research, community health organization, health education, medical and dental care, health insurance and rehabilitation.

The American Public Health Association is the largest professional organization of public health workers in the world, with more than 12,000 members. President is Dr. Ira V. Hiscock, chairman of the Department of Public Health, Yale University.

Organizations scheduled to meet simultaneously include the American School Health Association, Association of Business Management in Pub-

lic Health, Commissioned Officers Association of the United States Public Health Service, Conference for Health Council Work, American Association of Hospital Consultants, Association of Labor-Management Medical Care Program Administrators, American Association of Public Health Physicians, National Association of Sanitarians, Association of Schools of Public Health, American College of Preventive Medicine, and National Citizens Committee for the World Health Organization.

California League for Nursing Fosters Careers in Nursing

As an aid to meeting the need for qualified nursing personnel for health and medical services, the Committee on Careers in Nursing, formed by the California League for Nursing in 1953, is conducting an active state program to interest people in entering accredited schools of nursing, both professional and vocational.

The committee also is sponsored by the California Hospital Association, California Medical Association, and California State Nurses' Association. Serving in an advisory capacity are representatives of allied groups and organizations interested in nursing and community health.

Information concerning nursing as a career and the accredited schools of nursing in California may be obtained from the California League for Nursing, 465 Post Street, San Francisco 2.

Social Drinkers?

Some 70 million Americans drink alcoholic beverages, and most are social drinkers. But one in every 16 social drinkers appears destined to become an alcoholic after 10 to 15 years, Dr. R. E. McGill, administrator of the Huey P. Long Charity Hospital, Pineville, Louisiana, told the National Committee on Alcoholism. *Today's Health*, September 1956. Page 15.

In July, 1956, when Greater Cleveland began fluoridation of its water supply, there were 1,232 United States communities with a total population of 25,564,000 receiving fluoridated water.

Dr. Anderson Appointed Chief, Communicable Disease Center

Robert J. Anderson, M.D., has been named chief of the Communicable Disease Center of the U. S. Public Health Service, Atlanta, Georgia, effective October 1, 1956. Prior to his present appointment, Dr. Anderson was Assistant Chief, Division of Special Health Services, U. S. Public Health Service.

In 1945, Dr. Anderson was assigned by the Public Health Service to the California State Department of Public Health and served as Acting Chief of the Bureau of Tuberculosis for approximately one year.

Dr. Theodore J. Bauer, former chief of the Communicable Disease Center, has been made Deputy Chief, Bureau of State Services, the position previously held by Dr. Leroy Burney prior to his appointment August 4 as Surgeon-General of the Public Health Service to succeed Dr. Leonard Scheele. From 1938 to 1941, Dr. Bauer served as regional consultant for Venereal Disease Control in the San Francisco office of the Public Health Service.

Dr. Boyd Transferred by PHS To Head New York Offices

Richard F. Boyd, M.D., for the past three years Regional Medical Director, U. S. Public Health Service, for Region IX, San Francisco, has been transferred to New York City, effective October 1. Dr. Boyd, who was transferred to San Francisco June 12, 1953, from the Boston Region when it was combined with the New York regional office, will succeed Dr. A. L. Chapman as Regional Medical Director in PHS Regions I and II, with headquarters in New York City.

Charles F. Blankenship, M.D., succeeds Dr. Boyd as Regional Medical Director for Region IX. Dr. Blankenship comes to San Francisco from the Kansas City Regional Office, where he served as Regional Medical Director. He has been a Public Health Service medical officer since 1934 and is well known to public health workers of the West since he served in the regional office for several years during the second World War.

Mary L. Foster Appointed Mental Health Nursing Consultant

Miss Mary L. Foster has been appointed mental health nursing consultant for the State Department of Public Health.

For the past two years Miss Foster has been employed by the Harvard University School of Public Health as instructor in mental health nursing and assigned to the Boston City Health Department, Whittier Street Unit. Prior to that she was mental health nursing consultant with the New York City Department of Health. Miss Foster's first public health nursing experience was in Fresno, California, where she served as a community nurse with the American Red Cross.

Miss Foster is a graduate of the Massachusetts General Hospital School of Nursing and obtained her public health nursing preparation and bachelor's degree at Simmons College in Boston. In January, 1949, she was granted a master's degree from Teachers College, Columbia University, where she majored in personnel and guidance and later in mental health nursing.

Public Health Positions

El Dorado County

Public Health Nurse: Salary range, \$341-415; if qualified may start at \$376. To supervise nursing service in small county health department. Requires possession of California Public Health Nurse certificate and car; 10 cents per mile allowance. For further information write Dr. A. A. McKinnon, El Dorado County Health Officer, 8 Chapel Street, Placerville.

San Diego County

Physician I: Salary range, \$616-713. Permanent position immediately available for a physician desiring experience in the control and prevention of contagious diseases. No previous experience required. Write San Diego County Civil Service Department, Rm. 402, Civic Center, for application forms and further details.

Santa Barbara County

Public Health Nurse: Salary range, \$338-412. Staff positions available in a generalized program including schools. Please write to Petronilla Commins, Director of Public Health Nursing, Santa Barbara County Health Department, Santa Barbara.

Los Angeles City

Senior Public Health Statistician: Salary range, \$464-575. **Public Health Statistician:** Salary range, \$395-489. For application forms and further information, write Rm. 5, City Hall, Los Angeles 12.

SPECIAL CENSUS RELEASES *

Special Censuses of California Cities, *Series P-28 San Mateo County: Daly City (920).*

Estimates of the Farm Population of the United States, April 1950 to 1956. Bureau of the Census and Agricultural Marketing Service, *Series P-27 No. 23.*

Provisional Estimates of the Population of the United States January 1, 1950, to July 1, 1956. Bureau of the Census August 10, 1956, *Series P-25 No. 141.*

Copies of these releases may be obtained from: Library, Bureau of Foreign and Domestic Commerce, United States Department of Commerce at 419 Customs Building, 555 Battery Street, San Francisco, Calif., or at Room 450, 1031 South Broadway, Los Angeles, Calif.

* In ordering, specify series and number as shown in parentheses. These numbers are not population figures.

Home Sewage Systems Are Subjects of Meeting Series

Six, one-day training seminars on household sewage disposal systems were held throughout the State during August, the first in a series of 19 training activities planned by the State Department of Public Health and local health departments for the 1956-57 Fiscal Year.

The August seminars were attended by sanitarians, sanitary engineers, septic tank contractors, plumbing inspectors and others concerned with the proper regulation, design and installation of septic tank systems.

Training in this field is considered of current value because of the large number of new subdivisions being constructed on land of doubtful absorption capacity; because of increased useage of household detergents, automatic washers and garbage grinders, and because of recent research activities undertaken by the U. S. Public Health Service.

Assisting the department with the training was T. W. Bendixen, soil scientist for the U. S. Public Health Service at its Sanitary Engineer Center, Cincinnati, Ohio.

Department Staff Members Appointed To California Committee on Fitness

John Brown, M.D., and Theodore Montgomery, M.D., State Department of Public Health, were recently appointed members of the California Committee on Fitness. The committee is advisory to the California Project on Fitness sponsored by the Division of Instruction, California State Department of Education, under the leadership of the Bureau of Health Education, Physical Education, and Recreation.

Purpose of the project is to improve the fitness of California children, youth, and adults through effective programs of health education, physical education, and recreation. Among the many tasks with which the committee is concerned are: (1) to identify the elements that make up the physical aspects of total fitness, and to determine which ones can be tested; (2) to re-examine the purposes and policies of health education, physical education, and recreation in terms of changes in California living, and to develop effective programs; (3) to develop standards and devices for use by school districts in evaluating present programs in terms of contributions to total fitness; and (4) to interpret fitness needs of children, youth, and adults.

California League for Nursing to Hold Fourth Annual Convention Oct. 25-27

"Nursing the Public—Progress and Issues" is the theme of the fourth annual convention of the California League for Nursing to be held at the Ambassador Hotel in Los Angeles, October 25-27. Martha D. Adams, Director of Public Health Nursing, San Mateo County Department of Public Health, is president of the league.

The keynote address, "Developing Leadership Potentials," will be given by Mildred E. Newton, Director of the School of Nursing, Ohio State University. Progress and issues in nursing service and nursing education will be discussed and evaluated by administrators, practitioners and educators. The last program session will be devoted to a discussion of developments in California and the western region which are of particular significance to nursing.

ASHA Awards Life Membership To Lawrence Arnstein

An honorary life membership with the American Social Hygiene Association has been awarded to Lawrence Arnstein, of San Francisco, who in some 42 years of voluntary community service has earned the unofficial title of California's "Mr. Public Health." Mr. Arnstein, who now serves as the executive director of the San Francisco Social Hygiene Association, was honored with the award at a testimonial luncheon September 12.

In conferring the award, the American Social Hygiene Association cited his "diligent devotion to public health" in a career that began in 1913 when he was appointed to the San Francisco Board of Health by Mayor James Rolph, Jr. In 1942, Mr. Arnstein was appointed executive director of the California Social Hygiene Association, and later, of the San Francisco Social Hygiene Association.



LAWRENCE ARNSTEIN

The ASHA citation pointed to Mr. Arnstein's many successful undertakings in public health including, among many others, "working with industry and labor during World War II to assist health departments in conducting serologic surveys for syphilis; improving the social treatment of women arrested in San Francisco for sex offenses; establishing a world famous psychiatric project for selected venereal disease patients at the San Francisco City Venereal Disease Clinic; sponsoring legislation for the establishment of the School of Public Health at the University of California; developing training centers in family life education at local universities; and assisting in the establishment of the Family Life Education

Service of the Adult Division of the San Francisco City Schools.

"Mr. Arnstein's career brilliantly demonstrates the social achievements possible to a dynamic personality, tireless in effort and convinced of the worth of human beings. His activities belie his 75 years. Hard work, human interest and the knowledge that he is surrounded by dear friends throughout the city and State keep him young.

"His influence on public health programs has been vital not only in San Francisco but it has also contributed to the improvement of public health in the entire state. In turn, by his efforts to improve the public health of California, the entire nation has benefited—for sound programs, policies and services have their impact both on other states and on the Federal Government."

National Health Council Describes Program in New Booklet

"Together for health" is the theme of a booklet recently issued by the National Health Council, describing the purposes, history, and services of the council.

Organized in 1921 with 10 members, the National Health Council now provides a conference ground for the exchange of ideas and information among 43 active and associate members. Active members are voluntary health organizations and professional societies. Associates are civic bodies with marked health interests. Government health agencies serve as advisory members, and business concerns hold sustaining memberships.

Examples of the council's program conducted through many committees are: The annual National Health Forum, the Health Career Horizons Project for interesting young people in the health field, cooperation with some 70 national bodies in promoting official local health services, assistance to state and local health councils, sponsorship of the First National Conference on Neurological Disability; and operation of the National Health Library.

Copies of the folder are available in limited quantities from the council's headquarters, 1790 Broadway, New York 19.

Methods for Recovering Organisms From Sewers Tested in Portola

Methods for the recovery of organisms from sewer systems are being tested in Portola by a State Department of Public Health field team comprised of physicians, public health nurses, sanitary engineers and bacteriologists. Portola was selected for the tests because of the cooperation offered by city, county and health officials, and because the Portola sewer system, which is comparatively new, lends itself to such study.

Purpose of the tests is to evaluate laboratory methods of recovering organisms from sewage by placing gauze filters in the sewer effluent and by collecting grease samples from the sewer walls. In addition to that operation, raw, unprocessed sample material is being shipped to the department's Berkeley laboratory to see if live organisms can survive travel.

If successful, it would be possible to collect organisms from sewer systems simultaneously in many areas of California and ship them quickly to department headquarters without having to await arrival and preliminary processing by mobile laboratory units. This procedure also would eliminate having to assign a full technical crew to the field, thereby releasing staff for other important work.

Field Training in Nutrition Given Thailand Student

Miss Anothai Bhamarapravati, nutritionist with the Division of Nutrition, Thailand Ministry of Public Health, has completed a month of field training under the supervision of the California Department of Public Health's Nutrition Service.

The training program was given upon request of Cornell University, where Miss Bhamarapravati received her M.Sc. degree in June, and the Education and Training Branch, Division of International Health, U. S. Public Health Service.

She observed the nutrition component of state and local programs providing service to mothers and children and will return to her homeland shortly to resume her duties with the Ministry of Health.

GOODWIN J. KNIGHT, Governor
MALCOLM H. MERRILL, M.D., M.P.H.
 State Director of Public Health

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A recent release issued jointly by the Bureau of the Census and the Agricultural Marketing Service estimates that the farm population has decreased 11.2 percent between 1950 and 1956. This decline represents a long-time trend interrupted only during the depression and post World War II years. Although most age groups exhibited a decline, the age groups 18-24 showed the greatest decrease while there was little change in the number 65 years of age and over.

Review of Reportable Diseases Morbidity by Month of Report
August, 1956

Diseases	Cases reported this month			Cumulative cases from January		
	1956	1955	1954	1956	1955	1954
Anthrax	—	—	—	—	—	—
Botulism	1	—	—	4	1	—
Brucellosis	2	9	4	18	42	—
Coccidioidomycosis ¹	15	16	2	109	79	—
Diarrhea of newborn	—	1	13	6	10	—
Diphtheria	1	—	1	25	16	—
Encephalitis, acute ²	51	45	64	376	284	—
Gonococcal infections	1,669	1,399	1,305	8,255	10,034	10,831
Hepatitis, infectious	176	135	146	1,296	1,289	1,329
Hepatitis, serum	11	7	3	63	38	—
Leprosy	1	2	2	7	12	—
Leptospirosis	—	—	—	3	2	—
Malaria	4	2	2	24	21	—
Measles	856	892	1,070	29,506	65,300	56,783
Meningococcal infections	19	13	14	185	190	213
Mumps	832	1,406	866	29,652	27,167	26,394
Pertussis (whooping cough)	163	424	522	1,510	4,062	2,887
Poliomyelitis	399	310	995	1,340	1,051	2,472
Psittacosis	5	3	7	24	25	43
Q Fever ³	9	3	NR	49	8	NR
Relapsing fever	—	—	—	—	1	—
Rabies, animal	20	48	7	235	222	58
Rocky Mountain spotted fever	1	—	—	2	2	—
Salmonellosis	91	100	86	814	670	531
Shigellosis	218	158	133	1,136	774	622
Streptococcal infections (including scarlet fever)	237	198	186	3,922	6,009	6,575
Syphilis	718	824	423	3,544	4,750	4,646
Tetanus	4	3	1	21	23	27
Trachoma	1	—	—	4	2	24
Trichinosis	—	2	3	8	4	27
Tuberculosis	682	607	591	5,309	4,905	5,394
Tularemia	2	—	1	5	2	6
Typhoid fever	12	11	13	67	63	65
Typhus fever, endemic	—	—	—	2	1	2

¹ Since July 1, 1955—active primary (including cavitory) and disseminated coccidioidomycosis reportable.

² Encephalitis, acute, includes arthropod-borne infections, post infectious cases, and those with etiology undetermined.

³ N.R. (not reportable) prior to July 1, 1955.

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ice
January 1
1961

4
20
6
30

13
205
10,800
1,500
38

9
1
22
50,760
213

66,684
2,867
2,473
48
NR

50
1
531
622

1,575
1,646
27
24
27

304
6
65
2

10,000